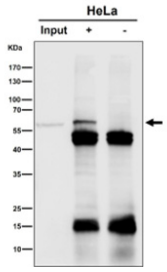
SLC27A4 Antibody / FATP4 / Solute carrier family 27 member 4 [clone 30S71] (FY13230)

Catalog No.	Formulation	Size
FY13230	Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol, 0.4-0.5mg/ml BSA	100 ul

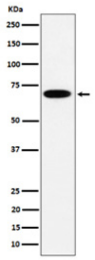
Recombinant RABBIT MONOCLONAL

Bulk quote request

Availability	2-3 weeks
Species Reactivity	Human
Format	Liquid
Host	Rabbit
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG
Clone Name	30S71
Purity	Affinity-chromatography
Buffer	Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol, 0.4-0.5mg/ml BSA.
UniProt	Q6P1M0
Applications	Western blot: 1:500-1:2000 Immunohistochemistry: 1:50-1:200 Immunocytochemistry/Immunofluorescence: 1:50-1:200 Immunoprecipitation: 1:50
Limitations	This SLC27A4 antibody is available for research use only.



Immunoprecipitation analysis using the antibody at 1:50 dilution. Western blot at 1:1000 dilution. Immunoprecipitation of SLC27A4 (FATP4) from HeLa lysate followed by Western blot detection shows a specific band at ~60 kDa, also present in the input sample and absent in the negative control. A separate Western blot of total lysate detects the expected ~72 kDa full-length protein. SLC27A4 is not known to be glycosylated, and its predicted mass (~72 kDa) reflects the complete 643-amino-acid translation product. The lower-migrating ~60 kDa form likely represents a truncated or processed species of SLC27A4 rather than a deglycosylated variant.



Western blot analysis of SLC27A4 expression in human HepG2 cell lysate. Predicted molecular weight ~72 kDa.

Description

SLC27A4 antibody detects Solute carrier family 27 member 4, encoded by the SLC27A4 gene. Also known as FATP4 (Fatty acid transport protein 4), this integral membrane enzyme mediates the uptake and activation of long-chain and very long-chain fatty acids. By coupling transport with acyl-CoA synthetase activity, SLC27A4/FATP4 plays a central role in lipid metabolism, skin barrier formation, and energy homeostasis. SLC27A4 antibody provides researchers with an essential tool to study fatty acid utilization in metabolic and epithelial systems.

Functionally, FATP4 antibody recognizes a 643-amino-acid multi-pass membrane protein localized to the endoplasmic reticulum and plasma membrane. SLC27A4 catalyzes both the import of exogenous fatty acids and their subsequent activation to acyl-CoA derivatives, which are required for lipid synthesis and beta-oxidation. Research using SLC27A4/FATP4 antibody has shown strong expression in skin keratinocytes and intestinal epithelia, where it supports lipid absorption and epidermal barrier integrity. This dual transporter-enzyme function ensures that fatty acids entering the cell are rapidly converted into metabolically usable forms.

Pathogenic variants in SLC27A4 (FATP4) cause ichthyosis prematurity syndrome, a rare autosomal recessive disorder marked by premature birth, respiratory distress, and defective skin barrier formation. Studies using FATP4 antibody demonstrate that loss of function disrupts epidermal lipid organization and compromises barrier cohesion, confirming the essential role of SLC27A4 in cutaneous and epithelial health.

Beyond congenital disease, altered SLC27A4/FATP4 expression has been implicated in obesity, diabetes, and cancer. Dysregulated fatty acid transport and activation can shift cellular energy balance, promoting insulin resistance and supporting tumor lipid demands. Research employing SLC27A4 antibody has linked elevated FATP4 activity to enhanced fatty acid uptake and metabolic reprogramming in malignant cells, highlighting its potential as a therapeutic target in metabolic and oncogenic pathways.

SLC27A4 antibody and FATP4 antibody reagents can be validated for western blotting, immunohistochemistry, and immunofluorescence to evaluate protein expression and localization. Western blotting confirms the ~72 kDa band expected for the full-length protein, immunohistochemistry highlights strong staining in skin and intestinal tissues, and immunofluorescence visualizes membrane-associated distribution. These complementary applications make the antibody a reliable marker for studying lipid transport and metabolic regulation.

By providing validated SLC27A4/FATP4 antibody reagents, NSJ Bioreagents supports research into fatty acid metabolism, epidermal differentiation, and systemic metabolic disease. Detection of Solute carrier family 27 member 4 (FATP4) enables investigators to explore how lipid uptake and activation contribute to cellular physiology and pathology.

Application Notes

Optimal dilution of the SLC27A4 antibody should be determined by the researcher.

Immunogen

A synthesized peptide derived from human SLC27A4 was used as the immunogen for the SLC27A4 antibody.

Storage

Store the SLC27A4 antibody at -20oC.

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